

REMARKS

The applicants appreciate the Examiner's thorough examination of the application and request reexamination and reconsideration of the application in view of the following remarks.

Claims 1-9 and 11-25 are rejected under 35 USC §112, first paragraph. This rejection is traversed since each of these claims have been cancelled.

Claims 1, 4, 6-11, 14, 15, 17, 18, and 20-22 stand rejected under 35 USC §103(a) as allegedly being unpatentable by U.S. Patent No. 6,490,455 to Park et al. in view of U.S. Patent No. 6,832,093 to Ranta. Applicants herein cancel claims 1-25 and add new independent claim 26 and dependent claims 27-29. Support for these claims can be found at page 7, line 19 to page 8, line 23 and page 15, line 17 to page 16, line 4, and cancelled claims 11-17.

The subject invention results from the realization that wireless communication devices such as cellular telephones can, without jamming, be effectively controlled in secure areas or any place where they are deemed to be an annoyance, but also not intervened with outside of a predefined area, by a control unit which tricks the wireless communication device into believing it has established a communication channel with the base station of a nearby cellular tower.

By measuring the absolute field strength of all received transmissions output by surrounding base stations and recording the information transmitted by the base stations, the control unit of the subject invention sets the power level of its transmitter to have an absolute field strength greater than the highest measured absolute field strength detected from a corresponding base station and transmits a signal containing information that identifies it as if it was an actual base station. Then, the cell phone transmits an interface signal, anticipating a response from the base station. The control unit then transmits a signal back to the cell phone mimicking the signal which would be transmitted by an actual base station. But, since the cell

phone believes the control unit is a base station, the control unit is able to control the cell phone to prevent incoming or outgoing calls with its carrier network. This may be accomplished by instructing the cell phone to lower its transmission power or change its transmitting frequency so that further transmissions from the wireless communication device do not reach any corresponding surrounding base stations.

Park et al. only relates to a method and apparatus for detecting a mobile phone in an idle state. Signal-generating unit 300, Fig. 3, generates a pseudo base station signal for transmission to a mobile phone in a detection area. Detecting unit 400 detects a response signal from the mobile phone that the phone transmits in response to the pseudo base station signal. When detecting unit 400 detects the response signal from the mobile phone, alarm-generating unit 500 generates an alarm to alert the person carrying the mobile phone or a supervisor that a mobile phone in idle state is present and should be turned off. See Park et al., column 9, lines 41-55. As noted at column 3, lines 33-38, Park et al. only relates to when a mobile phone is in an idle state, rather than when the mobile phone is powered-on and a communication channel is already established. Moreover, Park et al. does not teach, disclose or suggest transmitting information to a mobile phone to control the mobile phone to prevent use of the mobile phone with the surrounding base stations, as claimed by applicants. With Park's system, the mobile phone can still make and receive calls via the carrier network.

To allegedly overcome the deficiencies of Park et al., the Examiner combines it with Ranta. Ranta relates to a system for restricting the operation of a mobile phone in a certain area.

However, Ranta fails to teach, disclose or suggest applicant's claimed control module that establishes a direct communication channel between the cell phone and the transmitter so the control module acts as a controlling base station for the cell phone so the control module and the

cell phone can engage in a communication protocol, in which the transmitter transmits to the cell phone: a) a signal which instructs the cell phone to lower its transmission power so that transmissions from the cell phone do not reach any surrounding base stations; b) a signal which instructs the cell phone to transmit at a frequency not recognized by any surrounding base stations; and/or c) a signal which instructs the cell phone to remove itself from normal communication with the base stations, the control module controlling the cell phone to prevent use of the cell phone with the surrounding base stations.

Rather, in contrast to the subject invention, Ranta only discloses a beacon base station that rejects call setup requests:

Allowing location updates but rejecting all calls, both mobile-originating and mobile-terminating, is easy and implements in a very simple way a ‘concert hall’ embodiment of restricted areas: a cell where all mobile terminals may operate and where no mobile terminal will ever alarm about an incoming call during the show. The beacon base station simply rejects the call setup requests coming from the network by giving some previously known reason, e.g. ‘no channels available’.

*See Ranta at column 6, lines 29-37 (emphasis added).*

Since both Ranta and Park et al. fail to disclose applicant’s claimed features, the combination of these references fails to teach or suggest the invention as claimed by Applicants.

In contrast to Ranta and Park et al., the subject invention does not rely upon transmitting information about the nature of the restrictions to the mobile terminal, nor does it rely upon unique instructions to the mobile terminal, nor does it rely upon the mobile terminal’s ability to understand and implement unique instructions. The subject invention utilizes a control module that transmits to a cell phone standard instructions from the many instructions that comprise the various protocol standards. These standard instructions as claimed by applicant include: a) a signal which instructs the cell phone to lower its transmission power so that transmissions from

the cell phone do not reach any surrounding base stations; b) a signal which instructs the cell phone to transmit at a frequency not recognized by any surrounding base stations; and/or c) a signal which instructs the cell phone to remove itself from normal communication with the base stations. After the cell phone receives one or more of these instructions, the control module controls the cell phone to prevent use of the cell phone with the surrounding base stations and the mobile phone continues to operate as if it were in a normal public network, i.e., in communication with its carrier network, oblivious to the fact that it has been removed from its carrier network.

Claim 26 of the subject invention recites “a cell phone intervention device independent from a network of base stations which the cell phone communicates with, the device comprising: an antenna; a receiver responsive to transmissions received by the antenna; a transmitter; and a control module responsive to the receiver and connected to the transmitter, the control module configured to: measure the absolute field strength of all received transmissions detected by the receiver from surrounding base stations, set the transmission power level of the transmitter to have an absolute field strength greater than the highest, measured absolute field strength detected from a surrounding base station, detect a signal received from a cell phone in a predefined area proximate the receiver, and establish a direct communication channel between the cell phone and the transmitter so the control module acts as a controlling base station for the cell phone so the control module and the cell phone can engage in a communication protocol, the transmitter transmitting to the cell phone a) a signal which instructs the cell phone to lower its transmission power so that transmissions from the cell phone do not reach any surrounding base stations, b) a signal which instructs the cell phone to transmit at a frequency not recognized by any surrounding base stations, and/or c) a signal which instructs the cell phone to remove itself from

normal communication with the base stations, the control module controlling the cell phone to prevent use of the cell phone with the surrounding base stations." (Emphasis added.)

As noted above, both Park et al. and Ranta fail to teach, disclose or suggest applicants' claimed invention. Since both Park et al. and Ranta fail to disclose these features, the combination of these references fails to produce the invention as claimed by Applicants.

Furthermore, the Examiner fails to offer a sufficient explanation of why there would be a teaching, motivation, or suggestion to combine the teachings of Park et al. and Ranta in the first place. The Examiner continues to assert that "one with ordinary skill in the art at the time the invention was made [would] provide the above teachings of Ranta and Park to provide an economically attractive and functionally reliable solution of operating mobile devices in restricted areas." However, as applicants stated in their last response, it would not be economical to combine the beacon base station of Ranta, which communicates with a public carrier network, with the Park et al. apparatus, which merely detects a mobile phone in an idle state and generates an alarm. Also, there is no suggestion in either Ranta or Park et al. that the apparatus in one is more functionally reliable than the other such that the combination would be desirable. Thus, the Examiner fails to provide a sufficient teaching, motivation or suggestion to combine these two references as the Federal Circuit requires.

When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. See, e.g., McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) ("the central question is whether there is reason to combine [the] references," a question of fact drawing on the Graham factors).

"The factual inquiry whether to combine references must be thorough and searching." Id. It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be

dispensed with. See, e.g., Brown & Williamson Tobacco Corp. v. Philip Morris Inc., 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'") (quoting C.R. Bard, Inc., v. M3 Systems, Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998)); In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) ("Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references."); In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant); In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) ("teachings of references can be combined only if there is some suggestion or incentive to do so.") (emphasis in original) (quoting ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)).

The need for specificity pervades this authority. See, e.g., In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) ("particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed"); In re Rouffet, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) ("even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious."); In re Fritch, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (the examiner can satisfy the burden of showing obviousness of the combination "only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references").

*In re Sang Su Lee*, 277 F. 3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

Hence, there is no adequate suggestion that Park et al.'s apparatus for detecting a mobile phone in an idle state could be used with a more complex beacon base station, nor is there any suggestion that Ranta's beacon base station could be used with apparatus that merely detects a mobile phone in an idle state. Neither reference discusses how a control module could prevent use

of a mobile phone with the surrounding base stations while the phone engages in communication protocol with the control module as if it were a controlling base station as claimed by applicants.

Only the applicants' own disclosure teaches this and it is improper to use the applicants' disclosure as a blue print for conducting a hindsight §103 analysis.

Accordingly, the combination of Park et al. and Ranta does not disclose or suggest the subject invention as claimed by Applicants. Applicants respectfully request that the Examiner withdraw the rejection under 35 U.S.C. §103(a).

Claims 2, 12 and 19 stand rejected under 35 USC §103(a) as allegedly being unpatentable over Park et al. in view of Ranta and in further view of U.S. Patent No. 6,438,385 to Heinonen; claims 3 and 13 stand rejected under 35 USC §103(a) as allegedly being unpatentable over Park et al. in view of Ranta and in further view of U.S. Patent No. 6,128,507 to Takai; claims 5, 16, 23 and 25 stand rejected under 35 USC §103(a) as allegedly being unpatentable over Park et al. in view of Ranta; and claim 24 stands rejected under 35 USC §103(a) as allegedly being unpatentable over Park et al. in view of Ranta and in further view of U.S. Patent No. 6,496,104 to Kline. Since each of the claims rejected under 35 USC §103(a) depends from either of independent claims 1, 8, 18 or 23, they are patentable for at least the reasons stated above and are further patentable because they include one or more additional features. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections under 35 USC §103(a).

New claim 26 includes, in part, features that are similar to the features disclosed by cancelled claims 12-14. Regarding the rejection of claim 14, Park fails to disclose instructing the wireless communication device to undertake processes to remove itself from normal communication with a cellular telephone service provider. As noted above, Park et al. only discloses generating an external alarm when a cell phone is present and in an idle state. Park et

al. does not disclose controlling the cell phone or instructing it to remove itself from normal communication with a cellular telephone service provider.

Regarding the rejection of claims 12 and 13, both Takai and Heinonen et al do not relate to a cell phone intervention device that operates independently from a network of base stations. Rather, these references relate only to typical mobile communication networks. As such, one skilled in the art would have no motivation to look to either of these references to combine them with either Park et al. or Ranta. Accordingly, the prior rejections of claims 12-14 are improper and new claim 26 is allowable.

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned or his associates collect in Waltham, Massachusetts at (781) 890-5678.

Respectfully submitted,



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